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Research Article

The post-earthquake pedagogical implementations of the earthquake victim pre-school teachers

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Abstract: The main aim of this study is to investigate the pedagogical approaches of earthquake-affected teachers after the earthquake that caused great destruction and loss of life in Kahramanmaras on the February 6. Teachers have crucial roles in revitalising education settings in the post-disaster phase. Based on this point, this study was organised as a qualitative research within the case study. Thirty participant teachers were selected from schools in the areas affected by the deadly earthquake in Osmaniye, Hatay, and Kilis. Semi-structured interviews were employed to gather data, and a descriptive content analysis method was used to analyse the data. The findings were explained through five main themes: activities pre-earthquake, the changes made in the educational settings, indoor activities in post-earthquake, outdoor activities in post-earthquake, and children and teachers' attitudes towards activities in post-earthquake. The teachers placed importance on outdoor activities after the earthquake and stated that they fully understand what children experienced; therefore, they behave more considerately when compared to before and after the earthquake. This research aimed to help shape policies and professional development programmes that equip educators to address post-disaster education challenges.

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Introduction

Disasters are events that occur due to adverse weather conditions or other natural or human-made causes. These natural, technological, or human-induced formations cause social and economic losses in society, disrupting the simple lives of people (Ergünay, 2008). Earthquakes are one of the disasters that frequently occur in Türkiye, causing large-scale destruction (Şahin, 1991). Earthquakes and the intensity of their occurrence are natural disasters that are not fully known and have devastating consequences (Selçuk & Erem, 2022). The existence of this natural disaster cannot be predicted, and it is necessary to prepare various resources to prevent it from posing a danger to people's life safety. The education system related to earthquakes is at the forefront of these implementations. Earthquake education encompasses information that should be imparted throughout life, beginning in early childhood (Karakuş, 2013). Schools are the best place to provide a solid earthquake education in society. It is noted that 23 major earthquakes have been recorded in Türkiye over the last hundred years. Finally, the Kahramanmaraş earthquake, which occurred on February 6, 2023, at 04:17 with magnitudes of 7.8 and 7.5, is considered one of the century's most devastating disasters. Following the earthquake, thousands of aftershocks occurred, and according to official figures, at least 53,537 people lost their lives and more than 122,000 people were injured in Türkiye. According to the report by Istanbul Technical University (ITU), more than 300,000 buildings were identified as collapsed, heavily damaged, or in need of urgent demolition (ITU, 2023).

This devastating toll was reflected in the education system in various ways, and education was suspended for approximately two months in the 10 provinces affected by the earthquake. Children and adults may react differently to an earthquake disaster. While some children experience behavioural and emotional changes immediately after the earthquake, some children may exhibit problematic behaviours long after the earthquake (Kazak Berument et al., 1999). The reactions that children show to the trauma

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they experience may cause them to face problems such as concentration, fear, and memory difficulties. It has been determined that preschool children exhibit more regression, behavioural disorders, and aggressive behaviours in response to the traumas they encounter (Erol & Öner, 1999).

Paudel and Ryu (2018) examined the educational consequences of the 6.9-magnitude earthquake in Nepal in 1988. Their results showed that attendance to education decreased in the earthquake region. Similarly, the effects of the 7.8-magnitude earthquake in Tangshan, China in 1976 were examined by Wang et al. (2017). It was determined that the earthquake significantly reduced access to education. In addition, it was found that children who experienced the earthquake faced emotional difficulties (Kazak Berument et al., 1999). Children may experience psychological problems such as stress, anxiety disorder, dyspnea, pediatric tremor, sweating, and sleep disorders after the earthquake (Aydoğdu & Fofana, 2023; Gürbüz & Koyuncu, 2023). At this point, the most common and accessible area where children affected by an earthquake or any natural disaster struggle with the adverse situations they encounter is educational institutions. All these negative situations caused by the earthquake bring problems in the teaching and learning cycle (Yıldız, 2000). Explaining natural disasters and the activities that occur during and after natural disasters should be carried out by schools (Turhan, 2022). The roles of schools and teachers have a huge importance to explain students what natural disasters are, and what people can do to protect themselves during disasters.

When the literature is reviewed, several studies are found that examine various aspects of earthquakes and their effects on individuals. For instance, Budak and Kandil (2023) investigated undergraduate students' knowledge levels regarding earthquakes, while Genç et al. (2023) focused on the professional satisfaction of teachers in earthquake-prone areas, considering demographic and institutional variables. These studies highlight the broader psychological and educational impacts of earthquakes across different populations. Focusing more specifically on children, Karabulut and Bekler (2019) explored the effects of natural disasters on children and adolescents, and Akman and Yıldırım (2022) examined preschool children's understanding of natural disaster-related concepts. These findings emphasise that young children are also significantly affected by such traumatic events and that their level of understanding plays a role in how they cope with these experiences. Additionally, research has begun to address the experiences of educators. For example, Polat and Sarıçam (2024) identified the challenges faced by teachers in Hatay after the February 6 earthquake. Özoruç and Dikici Sığırtmaç (2024) found that both teachers and children were negatively affected, and that preschool teachers experienced high levels of earthquake anxiety, which in turn influenced their teaching processes. Despite these contributions, there is still a need for more detailed investigation into how preschool teachers manage educational practices in the aftermath of such disasters, especially in regions directly affected by earthquakes.

It has been demonstrated that earthquake education provided in early childhood can be effective in mitigating the long-term impact of earthquakes on young children (Aydoğdu & Fofana, 2023; Seiden et al., 2021). However, Aslanderen and Berkant (2023) revealed a lack of knowledge and skills among teachers regarding earthquake education in their study, which obtained opinions from preschool teachers working outside the earthquake area on earthquake education. Although some studies have explored changes in educational settings following natural disasters in various contexts (Turkoglu, 2023; Aydos et.al, 2025), there is still a notable gap in the literature regarding how preschool teachers in Türkiye, specifically those working with children affected by the Kahramanmaraş earthquake—described as the disaster of the century—adapted their classroom practices and learning environments. To date, no study has systematically examined the specific activities implemented by preschool teachers in this context. Therefore, this study aims to investigate why and what differences preschool teachers made in the activities they designed after the earthquake. Another feature of this study is that it is one of the limited pedagogical studies conducted in the area affected by the earthquake centred in Kahramanmaraş on February 6, 2023. The primary objective of this research is to examine the pedagogical implementations made by earthquake-affected preschool teachers in their educational activities. Within the scope of this general purpose, this study aimed to understand teachers' attitudes and their pedagogical applications in both indoor and outdoor activities. In this perspective, these questions are also acknowledged:

- Was there any application or activity before the earthquake?
- Was there any change in educational settings in the post-earthquake period?
- What were the indoor activities in the post-earthquake process?
- What were the outdoor activities in the post-earthquake process?
- How were the teachers' and children's attitudes towards pedagogical applications?

Method

This study was designed as a qualitative foundation within the case study. Qualitative research examines how people interpret their lives and experiences related to an event (Merriam & Tisdell, 2015). This study aimed to investigate in detail the views of preschool teachers affected by the February 6 earthquake regarding the situations they encountered in the post-earthquake educational environment. Case studies are important data collection methods that examine one or more situations in depth over a specific period, considering the situation under various themes that reveal it (Creswell, 2017). In this context, this study employed the case study method, as it aimed to address the experiences of preschool teachers affected by the earthquake and the changes and problems they encountered in their school practices.

Participants

In this study, purposive sampling was used to make the process more practical. At the same time, in purposive sampling, it is considered that the participants are directly related to the subject of the study (Neuman, 2012). In light of the initiative of purposive sampling, 30 preschool teachers who were working in schools within the Osmaniye Provincial and District National Education, Hatay Erzin District National Education and Kilis Provincial National Education, which are easy to reach to the researchers, from 10 provinces affected by the major earthquake and who were affected by the February 6, 2023 Kahramanmaraş earthquakes were included in the study. The demographic information of these teachers, along with their damages from the earthquake, is presented in Table 1.

Table 1
Participants' Demographic Information and Their Damages

Participants	Age	Gender	Education Background	Work Experience	Whether any detriments to the participants in the earthquake (house, relative)	Whether any detriments to the participants' students (house, relative)
T1	40	F	Undergraduate	18	-	-
T2	40	F	Undergraduate	14	-	-
T3	46	F	Undergraduate	23	Her brother passed away	There are students whose relatives passed away
T4	45	F	Master's Degree	14	Her relatives passed away	There are students whose houses collapsed
T5	50	F	Undergraduate	26	-	-
T6	48	F	Undergraduate	24	Her family's house collapsed	There are students whose houses collapsed
T7	30	F	Undergraduate	8	-	There are students whose houses collapsed
T8	33	F	Undergraduate	8	-	-
T9	38	F	Undergraduate	14	-	There are students whose relatives passed away and some children's houses collapsed
T10	37	F	Undergraduate	14	-	There are students whose houses collapsed
T11	40	F	Undergraduate	19	-	-
T12	28	F	Undergraduate	2	Her relatives passed away	-
T13	25	F	Undergraduate	2	-	-

T14	29	F	Undergraduate	2	-	There are students whose houses collapsed
T15	40	F	Undergraduate	16	Her relatives passed away	-
T16	32	F	Undergraduate	10	-	There are students whose relatives passed away
T17	40	F	Master's Degree	14	-	There are students whose houses collapsed
T18	26	M	Undergraduate	2	-	There are students whose houses collapsed
T19	36	F	Undergraduate	14	-	-
T20	28	F	Undergraduate	4	Her relatives passed away	-
T21	35	F	Undergraduate	14	-	-
T22	38	F	Undergraduate	15	-	-
T23	25	F	Undergraduate	2	Her relatives passed away	There are students whose relatives passed away and some children's houses collapsed
T24	37	F	Undergraduate	12	-	There are students whose houses collapsed
T25	30	F	Undergraduate	2	-	There are students whose houses collapsed
T26	39	F	Undergraduate	18	-	-
T27	48	F	Undergraduate	24	Her family's house collapsed	There are students whose houses collapsed
T28	25	F	Undergraduate	2	-	There are students whose houses collapsed
T29	39	F	Undergraduate	16	Her relatives passed away	There are students whose relatives passed away and some children's houses collapsed
T30	24	M	Undergraduate	2	-	-

As shown in Table 1, the ages of the participating teachers range from 24 to 50 years old. There are 2 male and 28 female earthquake victim teachers; 2 teachers hold a master's degree, and 28 are undergraduates. Their professional experience ranged from 2 to 26 years. 19 teachers suffered detriment in the earthquake, either to themselves or their students, or to both themselves and their students.

Data Collection Tool and Data Collection Process

In this study, semi-structured interview forms were used to collect data from the teachers. Interviews are a technique frequently preferred in qualitative research, used to investigate phenomena in-depth (Yüksel, 2020). The openness of some questions in semi-structured interviews provides access to more detailed data about the research conducted. Therefore, the semi-structured interview technique has a certain level of standardisation, while at the same time providing convenience in the study since its flexibility (Türnüklü, 2000). The researchers developed the semi-structured interview form used in this study. To ensure the validity and reliability of the results, changes were made to some of the questions by consulting with two different field experts. Getting expert opinions is one of the most effective methods to ensure reliability (Yıldırım & Şimşek, 2013). Afterwards, two earthquake-affected preschool teachers were interviewed to see if the questions were understandable, and a linguist made language corrections.

After the semi-structured interview forms were finalised, the data collection process began following the receipt of ethical approval. The study continued considering the volunteering of the participants. The participants were informed that their information would not be shared with anyone. During the data collection process, all interviews were conducted face-to-face, and each interview lasted approximately 30 minutes. The researcher both took notes and made audio recordings during the interview process. After the data collection process was completed, the audio recordings and participant notes were transferred to a digital environment for analysis and encrypted, allowing only the researchers to access them.

Data Analysis

The participants' answers, which were recorded in the digital environment, were analysed using the descriptive content analysis method. Descriptive content analysis is a systematic approach that examines research conducted on a specific phenomenon and reveals participants' tendencies in a descriptive dimension (Sözbilir et al., 2012). In studies where descriptive content analysis is performed, the information obtained from the collected data should be presented in a realistic and systematic manner (Ültay et al., 2021). When using this analysis, the participants' answers were frequently included to make it more realistic. The researchers and one external researcher analysed the data. At the end of the analysis, the researchers cross-checked the categories person by person.

The data received from 30 participants in this study were categorised, separated, and organised according to themes. It was systematised by visualising with figures and tables. The perspectives of teachers affected by the earthquake on the changes they made in their educational settings and activities afterwards were closely examined, incorporating direct quotes into the relevant categories.

Credibility and Transferability

To meet the criteria of credibility and transferability, we used a range of methods to present the study's context, participants, data collection environment, and working conditions. The table shows the procedures undertaken to collect and to analyse the data in consistent, transparent, and verifiable methods (Lincoln & Guba, 1985). To examine credibility and transferability more concretely, the methods used are outlined in Table 2.

Table 2
Methods and Procedures Used to Ensure Credibility and Transferability

	Method	**Procedure**
Credibility	- Professional opinion - Participants must be earthquake victims and work in the provinces affected by the earthquake	- Two professional opinions were obtained from the field before the interview form was created - Direct quotes from earthquake victims were included - Their damages are shown in Table 1.
Transferability	-Using purposeful sampling -Detailed description of the data collection process	- Teachers working in the earthquake area were contacted - The study design, sample, creation of the data collection tool, explanation of the data collection process and analysis were stated in detail

Research Ethics

The relevant permissions to conduct this study were obtained from the Agri Ibrahim Cecen University Scientific Research Ethics Committee with the decision numbered 199 dated 28.09.2023. The researchers adhered to ethical guidelines throughout the data collection process.

Findings

The findings were examined in the categories of activities carried out at school before the earthquake, activities carried out in the classroom post-earthquake, activities carried out outside the classroom post-earthquake, and attitudes of teachers and children during the activities post-earthquake.

Activities Implemented Before the Earthquake

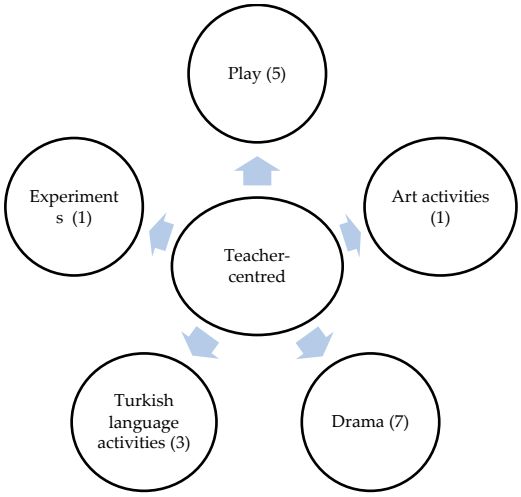
The earthquake or disaster-related activities implemented before the earthquake were categorised under two subheadings: teacher-centred and institution-centred.

Teacher-centred

Figure 1 shows the categories of activities that preschool teachers reported implementing in their classrooms specifically in relation to earthquake education prior to the February 6 earthquake. Among the thirty teachers interviewed, only five mentioned incorporating planned play activities related to natural disasters before the earthquake; seven used drama-based methods. Additionally, one teacher reported conducting science experiments, one facilitated art-based activities, and three included Turkish language activities addressing earthquake-related themes.

Figure 1

Teacher-centred Activities Before the Earthquake



T9, who said that she implemented drama activities before the earthquake, stated as follows:

> Before the earthquake, information about earthquake and fire was given. Drama activities implemented. Some planned play conducted for children about who to call and what path to follow in the house during an earthquake and fire.

T5, who said that she had implemented an art activity, explained the activity in detail, saying,

> After the earthquake drill, an art activity was conducted about the earthquake bag, which involved cutting, pasting, and painting.

T3 read children's books about natural disasters within the scope of Turkish language activities and had conversations with children about earthquakes. In this context, T30 provided experiments and gave the information during the classroom conversation about experiments they conducted in classroom conversation:

> When we covered the subject of natural disasters, we touched on earthquakes. We focused on the fact that the region we live in is an earthquake zone and what kind of precautions we should take in case of an earthquake. We talked about these and conducted experiments.

Seven teachers, who stated that they implemented drama activities, emphasised that they frequently benefited from role-playing, dramatisation and imitation techniques within the scope of drama. T9 stated that

> Before the earthquake, children were provided information about the earthquake and the fire, and then a related drama activity was implemented. A dramatic play was conducted to determine what to do in the event of a fire at home. Another dramatic play occurred about who to call and what path to follow.

T15 stated that after watching a video about the earthquake drill, she wanted the children to repeat what they saw in the video in the classroom through role-plays.

Institution-centred

All the teachers stated that the 'Drop, Cover, and Hold' earthquake drill was carried out on 12th November 2022 under the coordination of the Ministry of National Education (MoNE). At the same time,

four teachers mentioned that the Directorate of Disaster and Emergency (AFAD) organised an event at school to raise children's awareness about natural disasters during Civil Defence Week. These four teachers stated that AFAD provided brochures and video recordings about disasters. Three teachers noted that the Red Crescent team provided children with information on what to do during and after natural disasters during Red Crescent Week.

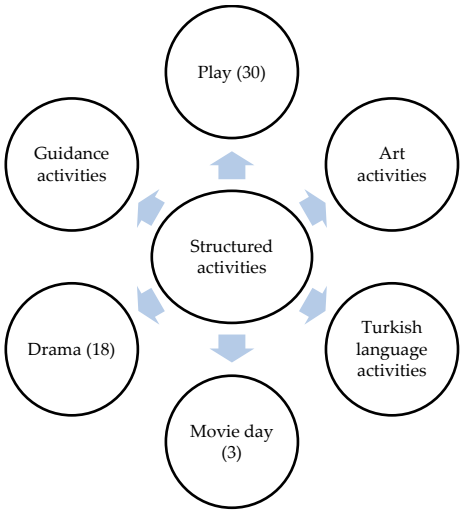
Post-Earthquake Activities Implemented Indoors

In the responses given by the teachers, the activities carried out in the classroom after the earthquake were examined under two subheadings: structured and free activities.

Structured Activities

Figure 2

Post-earthquake Structured Activites by the Teachers



All the teachers stated that they used adaptation play and play aimed at helping children accept what happened in the earthquake, after the break given to schools following the earthquake. While some teachers stated that they used play for adaptation, others stated that they incorporated play into structured activities to provide children with a freer environment and to harness the healing power of play. They stated that they wanted to give children morale and increase their motivation towards school through these activities. In this regard, T4 said,

> I mostly used adaptation to school activities after the earthquake. Children had a fear of being separated from their parents. I used more play activities while choosing and designing activities, children reflect their inner worlds while playing games.

It was observed that art activities were carried out regarding preparing earthquake bags. T11 stated,

> I used art activities and play drama; children feel excellent in these activities.

T18 stated that she implemented structured activities, such as Movie Day, track races, traditional games, and, What's in My Earthquake Bag, etc. Both teachers said that they sometimes turned on an animated movie and had a movie time to make the children feel happy. The teachers said to give children time to relax by watching their favourite cartoons. Again, as before the earthquake, drama was the most frequently used structured activity in classroom activities after the earthquake. Almost all teachers mentioned that they used drama, role-plays, and various drama techniques after the earthquake. The teachers declared that drama helps children convey their thoughts and feelings through play and role-playing, especially in the post-earthquake period.

Within the scope of Turkish language activities, it was revealed that finger plays, children's songs, and poetry activities were implemented concerning natural disasters. One of the two striking points regarding Turkish language activities was that the translation of the book "*Coping after disaster*" was read

to the children, and a conversation was held with them about what to do during and after an earthquake. The second point was that the children consistently wanted to share with their friends and teachers what they had experienced during the earthquake. To meet the children's need for self-expression, the teachers created a conversation circle and established a free environment for the children to share their thoughts. In this regard, T29 stated that

> The children truly wanted to share their experiences during the earthquake. This likely helped them relax. I listened to them with all my heart, creating an environment where they could speak comfortably. They shared at length while I listened, meeting their need to express themselves.

However, in return, T28 stated that

> We initially discussed the earthquake in the classroom. However, when the children brought up the subject, I tried to change the topic because I didn't want to dwell on the earthquake and wanted to show them that life goes on as usual.

Additionally, two participating teachers mentioned that the school counsellors (referred to as "guidance teachers" in Türkiye) conducted activities with children during scheduled guidance sessions. However, they noted that they were not informed about the content of these sessions.

Unstructured/Free Activities

Two teachers reported being caught in an earthquake during free playtime in the classroom and stated that they reminded the children of the "*drop, cover, and hold*" drill to prevent panic. The teachers provided children with opportunities to spend time in play centres and socialise with friends. According to the observations of the participating teachers, children primarily engaged in construction and building, dough play, and dramatic play during their free time. T30 said,

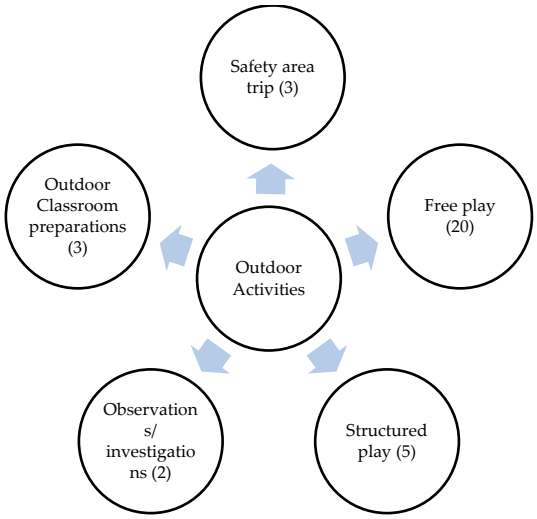
> I saw children building buildings with wooden blocks, plastic blocks, and brick blocks in the classroom, shaking them and testing their durability. I observed this and went after it. Let's design a building together. How can we make it strong enough so that it doesn't collapse easily? We have also created simple structures and observed that they collapse at the slightest shaking. We shook the sturdy ones and noticed that they were shaking but did not collapse. We conducted activities related to durability in this manner. We focused on the concept of building safety.

…and with his explanation, he encouraged children to think more critically during their free play and created an opportunity for earthquake awareness. Some teachers supported some of the free activities with outdoor play.

Post-Earthquake Activities Implemented Outdoors

Figure 3

Post-earthquake Outdoor Activites



After the earthquake, outdoor activities were categorised into five groups: safe area trips, free play, structured play, observations and inspections, and outdoor classroom preparations. Three teachers reported that they frequently visited safe areas to show children where the secure area during the

earthquake was located in the schoolyard. Twenty teachers noted that they provided free playtime outside the classroom, allowing children to play with their friends and use the schoolyard playground. Five teachers created tracks in the garden and had children engage in a competitive game with rules, enabling them to have fun. Two teachers examined the surrounding buildings, the school building, and the garden walls in the schoolyard, checking for cracks and discussing with the children how these cracks appeared. Three teachers concentrated on designing and implementing outdoor classroom preparations. T29 stated that the activities outside the classroom were positive by saying,

> I tried to do more outdoor activities in the educational environment because I observed that my children felt safer outside since they were very affected by the earthquake.

Three teachers mentioned that they decided to create an outdoor classroom during this process. T26 responded as follows:

> We focused on the outdoor classroom. We participated in numerous activities outside the classroom. We wanted materials from the parents to support us.

The teachers also emphasised that children engaged in physically active play in the garden and that they did so more willingly, finding it more enjoyable than indoor activities. The teachers stated that they felt safer outside the classroom. T28 noted that she and the children felt safer outdoors by saying,

> The children and I were terrified, so we did not go into the classroom as much as possible. We were always in the garden, as the season allowed. We carried all the materials to the garden, discussed what we would do in case of an earthquake, and talked about what we did during the earthquake.

Another striking answer belongs to T25:

> We stayed outside for months. We did not go in unless necessary; we learned to stay outside during that period. I had the opportunity to explain the importance and balance of nature.

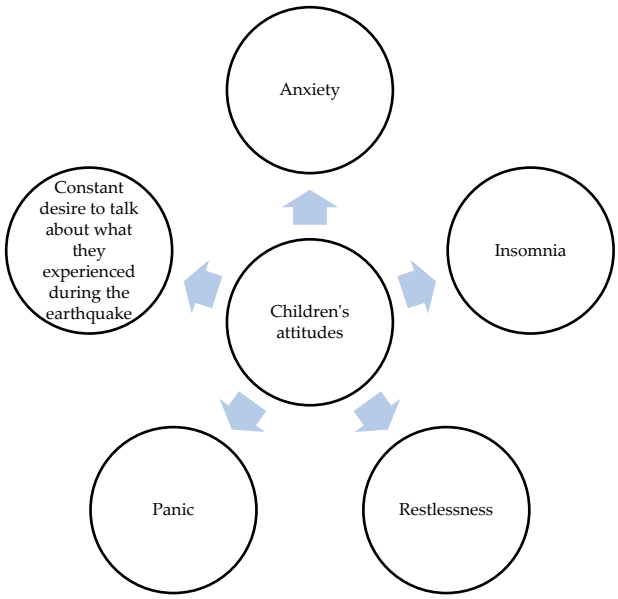
The importance of outdoor education was clearly revealed after the earthquake. While only two teachers stated that they did not engage in any activities outside the classroom after the earthquake, the remaining 28 teachers strongly emphasised that they valued outdoor activities.

Post-earthquake Attitudes

Post-earthquake attitudes are categorised under two subheadings to analyse the perspectives of teachers and children in educational settings.

Children's Attitudes

Figure 4
Children's Attitudes



In the responses from the teachers, it was stated that the children experienced anxiety after the earthquake, were sensitive to sudden and loud noises, and had sleep disorders, panic, and restlessness. Additionally, the teachers reported that the children wanted to talk about their experiences during the earthquake. T2 stated that

> I noticed that a few children in my class were affected by the earthquake more than others; they were afraid and disturbed when the earthquake was discussed. I told them not to talk about the earthquake except at certain times, especially outside of circle time, so that they would not be disturbed," and indicated how the children carried their fears into the educational environment during the earthquake.

On the other hand, T30 stated that

> The children really wanted to talk about what they experienced during the earthquake. They probably relaxed this way. I listened to them with all my heart. I created an environment that allowed them to talk comfortably. They talked at length, and I listened. I satisfied their need to talk.

and emphasised that the children met their need to talk. T28 stated that

> Two of the children had sleep problems, and according to their mothers, they did not sleep at all after the earthquake. Therefore, I tried not to dwell on it too much so as not to bother them too much. Those two students were more nervous than the others.

she stated that some children had sleep problems as a result of the information she received from their families and emphasised that those children were also nervous.

Teachers' Attitudes

Teachers who were themselves earthquake victims and who worked with earthquake-affected children frequently emphasised the importance of being cautious in the school. The responses revealed that teachers wanted to hug children, were more compassionate and more protective. Teachers also stated that they were anxious, more sensitive to children and more compassionate than before the earthquake. T28 clarified this information with the answer,

> My students who had sleep problems were more sensitive; they would even get startled when I called them. I tried to be sensitive to them.

When the teachers' pedagogical practices were examined, teachers stated that they provided the necessary environments for children to socialise more with their friends after the earthquake. At the same time, 25 teachers stated that they were more understanding and empathetic towards children's fears because they had experienced the same thing, and they also emphasised that they got less angry with children compared to before the earthquake. T22

> Little things started to seem unimportant now. My approach became calmer. I tolerated the little mischief.

She expressed that she became more tolerant towards children after the earthquake. Twenty-four of the teachers stated that they found it necessary to entertain the children and emphasised that fun activities, such as play and drama, were beneficial for the children. When the attitudes of the teachers who participated in the study were examined, it was revealed that they were more sensitive, empathetic, protective and compassionate towards the children after the earthquake because they experienced the same natural disaster. It was observed that they made an effort to socialise the children more after the earthquake and turned to activities that would entertain them, make them happy and relax.

Two teachers felt uncertain about their approach to children after the earthquake and requested support from the Provincial Directorate of National Education, to which their school was affiliated, for guidance. However, they stated that this request was unsuccessful. All the teachers were also asked if they had any information about the Psychosocial Support Earthquake Psychoeducation Program, prepared by the General Directorate of Special Education and Guidance Services of the Ministry of National Education to help teachers cope with the stress of children following the earthquake. Only one teacher reported having heard of this program but was uncertain about its content, while the other 29 teachers stated that they had never heard of it and were unaware of its existence.

Conclusion and Discussion

Upon examining the relevant literature, no study was found that examines the pedagogical activities undertaken by preschool teachers affected by earthquakes in educational settings in Türkiye. This study revealed the differences in practices made and implemented by preschool teachers of earthquake victims in educational settings before and after the earthquake. According to the responses received from the interviewed teachers, it was frequently mentioned that they were significantly affected by the earthquake and that precautions should be taken in educational settings. It was also noted that they often used play and drama activities to comfort children and facilitate their adaptation to school. The study's findings also showed that earthquake-affected teachers frequently utilised outdoor spaces to help themselves and children feel safe in the post-earthquake educational environment. While they stated that they regularly employed drama, play, Turkish language activities, and art activities in the classroom after the earthquake, they mentioned that they mostly used play outdoors. At this point, this study aligns with the finding of Özel and Ersoy (2023) that teachers predominantly preferred play activities during the post-earthquake adaptation process. Additionally, teachers noted that they understood children better because they experienced the earthquake themselves, approached them with a protective instinct, and thereby carried the emotional weight of being an earthquake victim into the educational environment. While this empathetic stance is valuable, it also highlights the need for structured pedagogical support. Solely relying on personal experience may not suffice when addressing children's complex emotional and developmental needs following a disaster. Therefore, it is essential to consider how professional training and targeted pedagogical programs could better equip teachers to support children in trauma-sensitive and developmentally appropriate ways. Özoruç and Dikici Sığırtmaç (2024) revealed elevated anxiety levels among teachers in their study, highlighting the worries of earthquake victim teachers. They stated that reopening schools had significant effects in reducing anxiety and stress in both children and teachers. In the findings of this study, teachers emphasised that the activities conducted outdoors positively impacted the reduction of children's stress.

There have also been studies indicating that children are psychologically negatively affected after an earthquake (Anderson, 2005; Bonanno et al., 2010; Marsee, 2008; Prinstein et al., 1996). Feo et al. (2014) revealed the frequency of post-traumatic stress disorder (PTSD) and anxiety in their study examining the psychological states of children and adolescents living in the Abruzzo region of Italy. They found that young children were more psychologically affected by the earthquake, highlighting the importance of age as a factor. Similarly, Fujiwara et al. conducted a study in 2017 that showed one in three children experienced PTSD even two years after natural disasters. This is supported by the finding regarding children's attitudes following the earthquake, in which it was noted that children wanted to share their experiences during the event. Likewise, Özoruç and Dikici Sığırtmaç (2024) reported similar findings in their study. Despite the teacher-centered and institution-centered activities conducted prior to the earthquake, it is typical for children, whose daily lives were disrupted and who lost relatives and homes, to want to talk about the earthquake due to what they heard from their surroundings. Furthermore, these children continued to experience the earthquake's effects through exposure to numerous aftershocks even after the initial event. In this context, the study's findings align with those of Proctor et al. (2007), who emphasised that children were affected by their families' reactions to the situation.

In this study, the participating teachers created suitable environments for the children to express themselves and relax. The teachers observed that the children primarily engaged in dramatic play corners and puzzle-building activities during their free time. Studies have also shown that earthquake victims reflect earthquakes in their play (Darga, 2023; Saylor et al., 1992). Teachers further facilitated relaxation by involving the children in play and informing them about earthquake awareness. They primarily conducted the drop, cover, and hold earthquake drill, arranged objects that made sounds to startle the children in the classrooms, and secured the cabinets. In this direction, teachers organised the educational environment to provide a safe space for children to learn and made the environment suitable for them. They mostly included play and art activities after the drill. Among the art activities, there was a focus on preparing earthquake bags. In this study, teachers not only helped children overcome earthquake anxiety after the

earthquake, but also conducted activities to raise their awareness during and after the earthquake. Thus, they set the stage for children to learn by creating an educational environment in which they thrived. This study also supports the findings of Fetihi and Gülay (2011), who revealed that children learned about earthquakes through various activities in the classroom environment during the preschool period.

In the study, the activities of teachers both indoors and outdoors who were exposed to earthquakes were closely examined, yielding a wealth of information about the pedagogical practices of teachers before and after the earthquake. It was observed that earthquake victim teachers primarily designed activities to ensure the safety of children after the earthquake and then to raise awareness of what to do during and after the earthquake. The study revealed that earthquake-affected teachers prepared activities to keep children active while raising awareness about earthquakes, and this finding is consistent with the study by Aslanderen and Berkant (2023). Activities appealing to more than one sense were designed, such as drama work, outdoor play, trips, watching videos, and engaging children in art activities to keep them active. It was determined that children relieved their anxiety and stress about the earthquake both in the classroom and during free time activities designed by the teachers.

A review of the literature revealed a significant gap in studies focusing on preschool children and teachers in the aftermath of earthquakes. This study aimed to address this gap by exploring the pedagogical approaches adopted by earthquake-affected preschool teachers. The focus was on the specific educational activities they implemented both inside and outside the classroom, and how these reflect underlying strategies such as child-centred, responsive, or trauma-informed approaches. The findings revealed that teachers became more compassionate, protective, and emotionally attuned to children after the earthquake. While these attitudes reflect a natural empathetic response, they also suggest an implicit move toward trauma-informed pedagogy. However, these adaptations were mostly intuitive, rather than grounded in formal training or structured pedagogical frameworks. Despite the existence of resources such as the Psychosocial Support Earthquake Psychoeducation Program, prepared by the General Directorate of Special Education and Guidance Services, the study showed that most teachers were unaware of its existence or had not implemented it. This points to a critical need for more accessible and widely disseminated professional learning opportunities that prepare teachers to support both children and themselves during and after natural disasters. In addition to understanding classroom practices, future research should also consider the role of families in supporting children's emotional well-being post-disaster. Evaluating how the home environment contributes to or hinders recovery could provide a more comprehensive picture of children's developmental trajectories in disaster contexts.

This study is limited to 30 teachers from three provinces in the earthquake-affected area; a larger-scale study covering other provinces in the earthquake region would provide much more detailed resources for this field.

Another conclusion drawn from the results is that teachers need in-service training to support themselves both emotionally and pedagogically. Although returning to school settings after experiencing the earthquake plays a significant role in normalising children's lives, the findings also underscore the need for guidance services to address teachers' own psychological well-being. Beyond emotional support, pedagogical preparedness is equally critical. While teachers adapted a range of indoor and outdoor activities, these were often based on intuition and lived experience rather than on theoretically informed pedagogical approaches. The study revealed limited evidence of intentional use of structured methods such as inquiry-based, project-based, or collaborative learning. This points to a gap between practice and pedagogy, suggesting that professional development should include training on how to design and implement trauma-informed educational strategies underpinned by established theories of learning and child development.

This research sheds light on education stakeholders and policymakers regarding identifying the barriers that may prevent children and teachers from experiencing the psychological effects of disasters. The findings of this research are instrumental in shaping evidence-based policies and tailored professional development programs that address the unique needs of educators in post-disaster contexts. By focusing

on critical areas such as trauma-informed teaching strategies, curriculum adaptation, and community engagement, educators can be empowered to navigate the intricate challenges of post-disaster education effectively. This targeted support not only enhances their capacities but also ultimately improves outcomes for students in these vulnerable settings.

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